

App. Serial No. 10/529,962
Docket No.: BE020028 US

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Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The Final Office Action dated August 14, 2006 indicated that the previous objections to the drawings as well as certain objections regarding the claims are withdrawn. The Office Action recited one new objection to claim 11.

The Final Office Action dated August 14, 2006 further indicated that the earlier rejections of claims 1-10 under Section 103(a) have been withdrawn, and indicated the following new rejections, specifically that: claims 1, 3, 5, 9 and 11 stand rejected under 35 U.S.C. § 102(b) over Ajuria *et al.* (U.S. 5,837,612); claims 2, 6 and 8 stand rejected under 35 U.S.C. § 103(a) over Ajuria in view of Peterson *et al.* (U.S. Pat. 6,545,299); claims 4 and 10 stand rejected under 35 U.S.C. § 103(a) over Ajuria in view of Lam (U.S. Pat. 6,413,828); and claim 7 stands rejected under 35 U.S.C. § 103(a) over Ajuria and Peterson, and further in view of Lam.

With respect to the objection to claim 11 for certain informalities recognized by the Examiner, Applicant has amended claim 11 as suggested, with the additional use of the word "a" in two places at lines 3 and 7 for consistency. Applicant appreciates the Examiner's attention to the claim language and submits that the objections have been overcome.

Applicant respectfully traverses all of the Section 102 and Section 103 rejections of claims 1-11, each of which relies upon the Ajuria reference alone or as a primary reference, because the cited portions of the Ajuria reference do not correspond to subject matter as indicated. For example, the Final Office Action asserts on page 3 that Ajuria discloses "applying an auxiliary layer 106 ... to a surface of a silicon body 102" in citing figures 6-12 and the text at column 5, lines 55-60 of the Ajuria reference. However, these cited portions of the Ajuria reference do not disclose the subject matter as suggested in the Final Office Action. For instance, referring to FIG. 7, the silicon layer 106 (asserted as the claimed auxiliary layer) is formed on a dielectric layer 104 as described at lines 46-49 of column 5, and is therefore not applied to the surface of the semiconductor substrate 102 (asserted as the

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claimed silicon body). Therefore, the layer 106 is not, as indicated in the Final Office Action, applied to the substrate 102; the cited portions of the Ajuria reference therefore do not correspond to the limitations in independent claims 1 and 11.

As consistent with the above discussion, the oxidation approach in the Ajuria reference involves the formation of separated oxidation layers, wherein a thermal oxide 107a is formed in a trench 108 and an oxide layer 107b is formed on the silicon layer 106 and is separated from the thermal oxide by the dielectric layer 104. Referring to FIG. 8 in the Ajuria reference, the dielectric 104 is recessed as indicated by dimension Y. In this regard, the Ajuria reference also fails to correspond to, and further teaches away from, limitations directed to carrying out an oxidation treatment to provide the walls of the grooves and windows with a layer of silicon oxide (e.g., as in independent claim 1).

Regarding the rejections of claims 2-10, which depend from claim 1, Applicant submits that these rejections also fail for the reasons discussed above, in that the cited portions of the Ajuria reference fail to correspond to the limitations in claim 1. Generally, where an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *See, e.g., In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). In this regard, the rejections of claims 2-10 are also improper and should be removed.

In view of the above, all of the Section 102 rejections are improper and should be removed because the cited portions of the Ajuria reference do not correspond to the claimed limitations. The Section 103 rejections are also improper and should also be removed because each of these rejections relies upon the same cited portions of the Ajuria reference, which do not correspond to the claimed limitations. Notwithstanding the above, certain improprieties with the Section 103 rejections are discussed further below and form additional bases upon which Applicant further traverses the Section 103 rejections.

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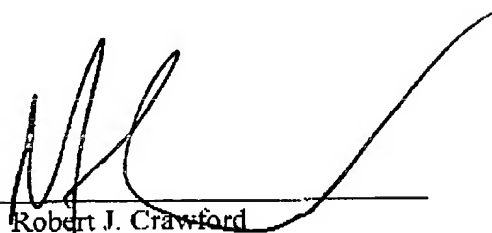
Regarding claims 2 and 6-8 and as acknowledged in the Final Office Action, the cited references fail to provide teaching or suggestion of the limitations in claim 2 directed to "a layer of $\text{Si}_x\text{Ge}_{1-x-y}\text{C}_y$, where $0.70 < x < 0.95$ and $y < 0.05$." Rather than cite evidence of teaching or suggestion of such limitations, the rejections rely upon an unsupported assertion that these limitations "produce no unexpected function." The rejections further assert that "Si-Ge is replaceable with Si-Ge-C" without citing any evidence in support of this assertion, without citing any evidence of motivation for making such a replacement, and without providing any explanation as to how such a replacement could function with the claimed limitations and/or with the primary Ajuria reference. As indicated in Applicant's specification, these limitations are directed to an approach to facilitate stability at high temperatures, which is useful, for example, to effect an oxidation process over a short time (*see, e.g.*, paragraph 0007). In this regard, the rejections of claims 2 and 6-8 fail to establish a *prima facie* case of obviousness in that the cited combination of references fail to teach or suggest all of the claimed limitations, and in that the rejections fail to cite evidence of motivation to modify the primary Ajuria reference. Applicant therefore submits that the Section 103 rejections of claims 2 and 6-8 are improper and should be removed.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and that the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the senior patent counsel overseeing the application file, Peter Zawilski, of Philips Corporation at (408) 474-9063.

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